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Basic Imagery Interpretation Report



**NATIONAL
PHOTOGRAPHIC
INTERPRETATION
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**SHANGHAI HF
COMMUNICATIONS FACILITY NAN-HSIANG**

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**CHINA
AUGUST 1969**

Declass Review by NIMA/DOD

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4 PAGES
GROUP 1: EXCLUDED FROM
AUTOMATIC DOWNGRADING
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INSTALLATION OR ACTIVITY NAME		COUNTRY
Shanghai HF Communications Facility Nan-hsiang		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	31-17-35N 121-18-00E	
MAP REFERENCE		
ACIC. US Air Target Chart, Series 200, Sheet 0492-2HL, 2d ed, Aug 64, scale 1:200,000 (SECRET)		
NEGATION DATE (if required)		
NA		

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ABSTRACT

This report is a detailed description of the Shanghai High Frequency (HF) Communications Facility Nanhsiang. It includes photography of the facility and mensuration of significant features.

The facility contains three directive arrays, two double rhombic antennas, 23 rhombic antennas, and a support area.



BASIC DESCRIPTION

The Shanghai HF Communications Facility Nanhsiang is located 0.5 nautical miles (nm) west of Nanhsiang and 10 nm west of Shanghai, almost at sea level (elevation 25 feet). It contains 23 rhombic antennas, two double rhombic antennas, and three directive arrays which surround a support area (Figure 1). Except for a wall-enclosed transmitter building located within the support area, the facility is not secured. The facility was complete and operational when first observed [redacted]. It has not been covered on high-resolution photography since that date. Although the feeder connections and dissipation lines are not discernible on the rhombic antennas or the directive arrays, the spatial arrangement of the antennas (i.e., the absence of space diversity) strongly suggests a high frequency/broadcast transmitting capability. The presence of a large cooling pond (item 46) adjacent to the transmitter building (item 1), and the relatively large support area are characteristic of a transmitting facility. A commercial powerline enters the facility from the northeast.

Details of antennas and structures are given in Figure 1 and Tables 1 and 2. All antennas are expressed as having a forward and back azimuth of propagation, as feeder connections and dissipation lines cannot be seen.

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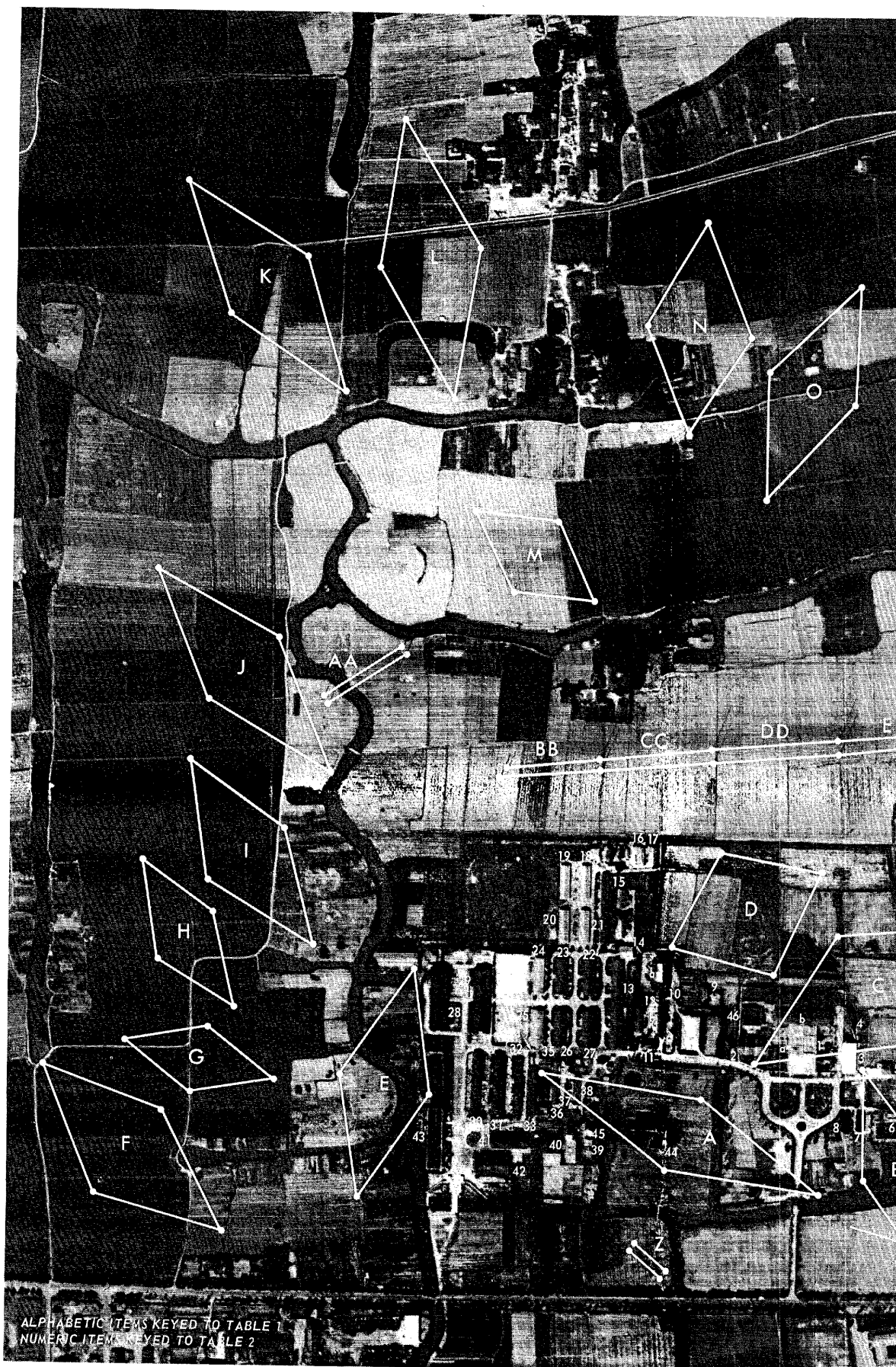
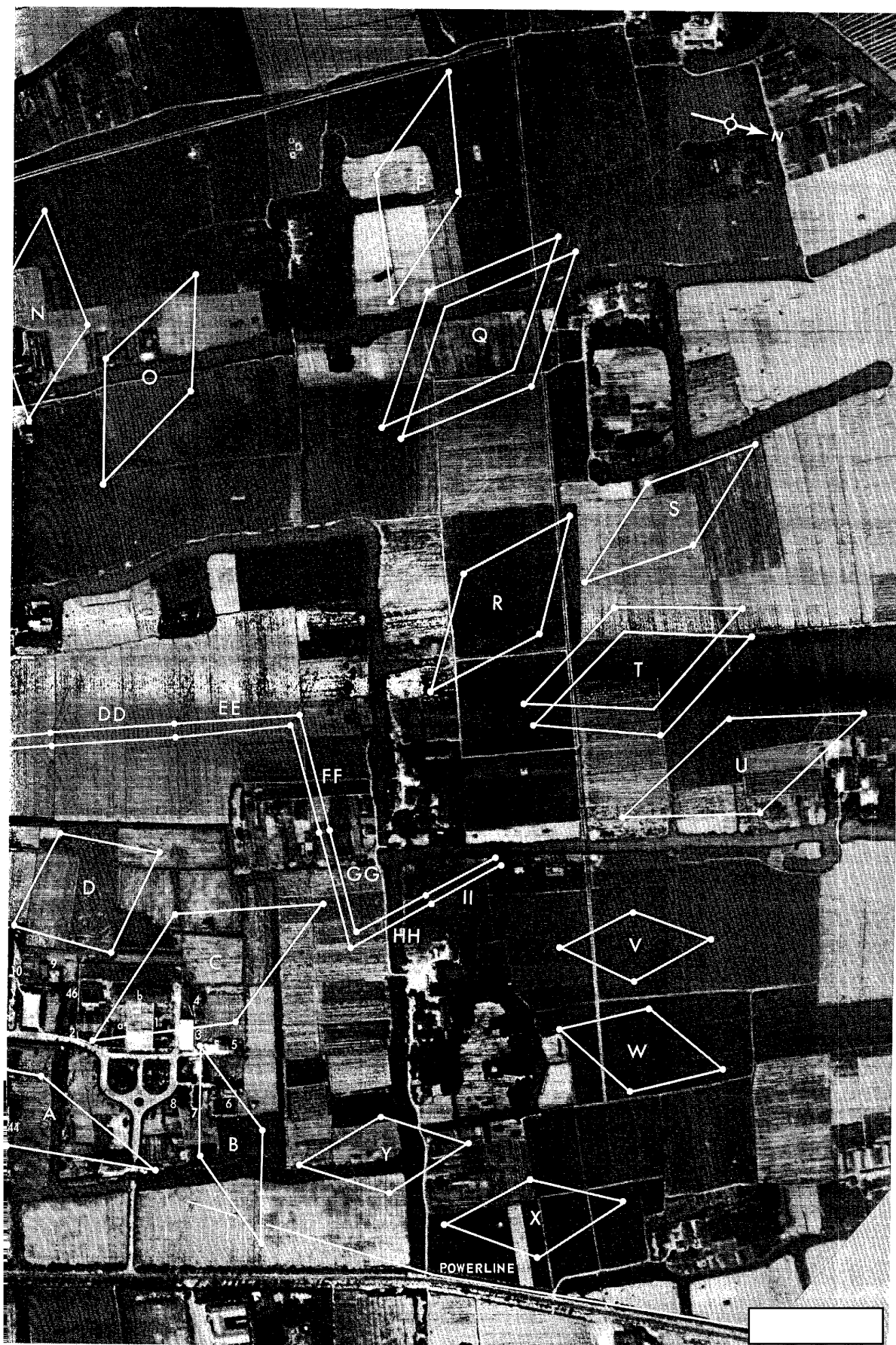


FIGURE 1. SHANGHAI HF COMMUNICATIONS FAC



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HAI HF COMMUNICATIONS FACILITY NANHSIANG

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Table 1. Details of Antennas, Shanghai HF Communications Facility Nanhsiang (ante

Antenna	Type	Major Axis (m)*	Minor Axis (m)*	Tilt Angle (deg)**	Leg Length (m)*	Initial Gre Circle Bear (deg)***
A	Rhombic	266	69		138	
B	Rhombic	177	53		93	
C	Rhombic	231	95		125	
D	Rhombic	141	102		87	
E	Rhombic	204	79		110	
F	Rhombic	213	94		116	
G	Rhombic	130	63		73	
H	Rhombic	152	71		81	
I	Rhombic	192	79		104	
J	Rhombic	228	82		121	
K	Rhombic	228	85		121	
L	Rhombic	248	87		131	
M	Rhombic	131	66		74	
N	Rhombic	181	87		100	
O	Rhombic	203	77		109	
P	Rhombic	211	77		111	
Q	Double rhombic (end pole separation equals 65 meters)*	215	122		120	
R	Rhombic	184	85		103	
S	Rhombic	195	68		102	
T	Double rhombic (end pole separation equals 65 meters)*	205	114		111	
U	Rhombic	231	81		123	
V	Rhombic	152	71		82	
W	Rhombic	152	71		86	
X	Rhombic	148	67		82	
Y	Rhombic	152	70		81	
Z	Unidentified	--	--		--	
AA	Unidentified	--	--		--	
BB	Unidentified	--	--		--	
CC	Unidentified	--	--		--	
DD	Unidentified	--	--		--	
EE	Unidentified	--	--		--	
FF	Unidentified	--	--		--	
GG	Unidentified	--	--		--	
HH	Unidentified	--	--		--	
II	Unidentified	--	--		--	

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Table 2. Details of Structures, Shanghai HF Communications Facility, Nanhsiang (item numbers keyed to Figure 1)

ity Nanhxiang (antenna designators keyed to Figure 1)

Altitude (m)*	Initial Great Circle Bearing (deg)***	Pole Height (m)*	Length of Array (m)*	Separation of Antenna & Reflectors (m)*
38		--	--	--
33		--	--	--
25		--	--	--
37		--	--	--
10		--	--	--
16		--	--	--
73		--	--	--
31		--	--	--
24		--	--	--
21		--	--	--
21		--	--	--
31		--	--	--
24		--	--	--
20		--	--	--
29		--	--	--
1		--	--	--
0		--	--	--
3		--	--	--
2		--	--	--
1		--	--	--
3		--	--	--
22		--	--	--
23		--	--	--
23		--	--	--
23		--	--	--
23		--	--	--
1		--	--	--
1		23	41	5
1		34	84	8
1		34	80	8
1		61	99	8
1		61	109	8
1		61	106	8
1		61	102	9
1		61	94	9
1		61	80	8
1		61	67	8

Item	Description	Dimensions (m)*
1	Transmitter building	
a	Main section	50 x 12
b	West section	42 x 23
2	Building	22 x 15
3	Building	26 x 11
4	Building	16 x 7
5	Building	12 x 9
6	Building	11 x 7
7	Building	18 x 7
8	Building	18 x 7
9	Building	10 x 6
10		
a	Building	22 x 15
b	Building	39 x 5
11	Building	16 x 8
12	Building	33 x 5
13	Barracks	75 x 9
14	Building	11 x 10
15	Barracks	59 x 6
16	Building	16 x 6
17	Building	16 x 6
18	Barracks	28 x 8
19	Barracks	28 x 8
20	Barracks	28 x 8
21	Barracks	28 x 8
22	Barracks	30 x 9
23	Barracks	30 x 9
24	Barracks	30 x 9
25	Barracks	30 x 9
26	Barracks	30 x 9
27	Barracks	30 x 9
28	Barracks	52 x 13
29	Barracks	52 x 13
30	Barracks	52 x 8
31	Barracks	52 x 8
32	Barracks	48 x 7
33	Building	41 x 8
34	Building	7 x 6
35	Building	10 x 8
36	Building	6 x 6
37	Building	37 x 5
38	Building	23 x 6
39	Pumphouse	5 x 5
40	Building	26 x 9
41	Generator building	32 x 14
42	Building	25 x 20
43	Barracks	52 x 12
44	Barracks	52 x 12
45	Water tower	13 x 8
46	Cooling pond	15 x 15

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